



**HIR**<sup>®</sup>  
YOUR BUILDING MASTER



AMERICAN  
TECHNOLOGY



GERMAN  
TECHNOLOGY

## TECHNICAL DATA



# DELTA HIR TILE ADHESIVE

Category: C2TES1



INDIA'S 1<sup>st</sup> 100% Silica  
Based Mortar



No Extra Cement  
And No Sand



Polymer Modified Gel  
Based Technology



German And  
American Tech



Self Curing



Stronger Bonding



Easy To Make  
And Clean



Reduce Labour  
Cost



### DESCRIPTION

HIR Delta is formulated to achieve C2TES1 category of tiles adhesive according to ISO standards. HIR Delta tiles adhesive performed well in extreme conditions to fix marble, tile, stone on wall and floor. HIR Delta tiles adhesive is more flexible, more improved quality and performance can withstand change in weather condition like rain, summer and winter of our country. Due to flexible nature this HIR tiles adhesive can tolerate vibration and deformation to an extent. HIR Delta tiles adhesive is recommended to fix marble, natural stone and vitrified tiles of large sizes on wall and framing even with less thickness.

**AREA OF APPLICATION:** INTERIOR AND EXTERIOR APPLICATION OF TILES AND STONE.

### RECOMMENDED USE

- Fixing tiles on tiles, stone, marble on floor upto 1600mm x 3200mm
- Fixing tiles, stone, marble on floor upto 1600mm x 3200mm
- Fixing tiles on wall up to 1600mm x 3200mm
- Framing 1200mm x 3200mm

**Coverage 0.495kg/Sq.Ft/3mm Thickness\***

### FEATURES

- Better Improved Bonding
- Better Pot Life
- Long Open Time
- Easy to clean
- Improved quality
- Better Deformation S1
- More Flexible
- High Deformation
- No Shrinkage
- Sustains Heat Ageing
- 100% silica sand

### BENEFITS OF HIR TILES ADHESIVE

- Stronger Improved Bond Strength
- Longer working Time and Zero wastage
- More strength
- No spots on tiles after fixing
- No hollow
- No shrinkage and Resist temperature variation with better bonding and Preserve Mother Nature

### SURFACE PREPARATION BEFORE USING TILES ADHESIVE

- Surface like floor, wall should be cement based or plastered.
- Floor and wall should be clean, free from oil or greasy material, loose particles.
- Wall should not be painted or wall putty or hollow or weakly plastered.
- If it is painted or wall putty remove it with grinder and make surface rough for better bonding.
- Surface should be moist and water free.
- Wall tiles should be dip in water for 30 minutes before using.
- Vitrified, Porcelain tiles or digital tiles should be clean and free from dust or other foreign materials.
- Cement surface or plastered wall should be well cured with water before fixing tiles.

### MAKING OF TILES ADHESIVE

- Take water in bucket and add gradually HIR tiles adhesive in it.
- Quantity of water is 28% +/-5% in 20 kg tiles adhesive bag.
- Take 5 liters of water and add HIR tiles adhesive gradually to bucket and mix well using mixture machine simultaneously.
- Add water from remaining 1 liter as per usage and requirement of viscosity of tiles adhesive.
- Gradually mix using mixture for 3 minutes.
- Keep mixture on standby for 5 minutes. Again mix it for 1 minute before use.
- Use tiles adhesive within time period of mentioned pot life using right method of trowel.

### HOW TO APPLY TILES ADHESIVE IN RIGHT WAY

- HIR tiles adhesive should be mixed properly to achieve uniform consistency.
- Use notched trowel from 6 mm to 30 mm that gives bed thickness from 3 mm to 15 mm respectively.
- Back butter thin layer of HIR tiles adhesive on tiles/marble/stone using flat side of trowel.
- Comb on additional adhesive with the notched side of the trowel in one direction straight either vertical or horizontal.
- Place the clean tiles/marble/stone on correct tiles adhesive bed thickness.
- Move the tiles/marble/stone in opposite direction to that of tiles adhesive troweled.
- By doing this we will get + 90% bonding between tiles/marble/stone and tiles adhesive.
- Use spacers if tiles/marble/stone fix in exterior area, exposed to sun and water like parking and veranda or if fixing tiles on exterior wall.

### PRECAUTIONS WHILE USING TILES ADHESIVE. ERRORS TO AVOID WHILE USING TILES ADHESIVE

Choose correct tiles adhesive. Selection of tiles adhesive depends on

1. **Size of tiles:** stone, marble
2. **Type of tiles:** stone, marble
3. **Area of application:** interior or exterior
4. **Height of application**

- Keep HIR Tiles Adhesive in company packing away from moisture, water and direct sunlight.
- Correct surface preparation and cleaning, curing of tiles/marble/stone before using.
- Use whole pack in one go or keep it away from moisture, water and direct sunlight.

### PRECAUTIONS WHILE USING TILES ADHESIVE. ERRORS TO AVOID WHILE USING TILES ADHESIVE

- Add water in bucket 1st then adhesive gradually. Add tiles adhesive to water for uniform mixture. If water is added to tiles adhesive leads to lumps formation and forms air bubbles. This in future leads to failure of tiles and adhesive bonding.
- Use tiles adhesive within time of pot life. Increase in atmospheric temperature reduces pot life. Pot life of any product mentioned by any company is according to standardized temperature, relative humidity. So actual pot life may vary. If tiles adhesive used after pot life leads to bond failure between tiles and adhesive.
- Move of trowel in one direction is must. Make sure to slight movement of tiles/marble/stone in opposite direction to remove air bubble and hollow space for 90% plus bonding.
- Traditional movement of trowel leads to formation of air pockets and lower bonding %.
- Use spacer if laying tiles on exterior wall or floor to avoid bending and hollowing of tiles in future.
- Use spacer and fill epoxy if laying tiles in bathroom to avoid water leakage.
- Avoid using of floor and grouting for 24 hours to 48 hours depending upon atmospheric temperature and weather.
- Avoid vibration or repairing of wall and surrounding nearby walls if tiles is fix on wall for 24 hours to 48 hours at least.

**PHYSICAL PROPERTY**

FORM	POWDER
COLOUR	GREY, WHITE
BASE	MINERAL
ADHESIVE THICKNESS	3MM TO 15MM
BULK DENSITY	13.70
MIX DENSITY	1.850KG/LTR
TEMPERATURE RANGE OF APPLICATION	From +10° C to +40° C

**TECHNICAL DATA**

WATER DEMAND	28% +/-5%
POT LIFE (30°C)	3 HOURS
OPEN TIME (30°C)	60 minutes
ADJUSTING TIME B111 Tiles (30°C)	20-25 minutes
ADJUSTING TIME B1a Tiles (30°C)	45-50 minutes
TENSILE ADHESION STRENGTH 28Days	≥ 2.5 N/mm <sup>2</sup>
LIGHT FOOT TRAFFIC	48 HOURS
HEAVY FOOT TRAFFIC	72 HOURS
SWIMMING POOL	14 DAYS
GROUTING IN WALL	12 HOURS

**SAFETY FEATURES:**

Wear suitable protective clothing, gloves and goggles. After contact with skin, wash immediately with plenty of clean water. In case of contact with eyes rinse immediately with plenty of clean water and seek medical advice. Keep out of reach of children.

**PACK:** 20KG

**SELF LIFE:** 12 Month in original packaging ,protected from direct sunlight and stored in dry condition

**NOTE:**

Working time/setting time will vary slightly with temperature: higher temperatures = shorter; lower temperatures = longer.